

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Joerg Ehrhardt, *et al.*

Application No.: 09/776,040

Confirmation No.: 2464

Filed: February 1, 2001

Art Unit: 2174

For: SETTING UP A COMMUNICATION  
PROCEDURE BETWEEN INSTANCES AND  
A PROTOCOL TESTER USING THE  
METHOD

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Examiner: Peng Ke

**REPLY BRIEF**

MS Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This Reply Brief is filed in response to the Examiner's Answer dated August 18, 2009 and contains the following items on separate pages, as required by 37 C.F.R. § 41.41 and M.P.E.P. § 1208:

- I. Status of Claims
- II. Grounds of Rejection to be Reviewed on Appeal
- III. Argument
- Claims Appendix

**I. STATUS OF CLAIMS**

**A. Total Number of Claims in Application**

Claims 1-20 are pending in the application and stand finally rejected under 35 U.S.C. § 103.

**B. Current Status of Claims**

1. Claims canceled: None
2. Claims withdrawn from consideration but not canceled: None.
3. Claims pending: 1 - 20.
4. Claims allowed: None.
5. Claims rejected: 1 - 20.

**C. Claims On Appeal**

The claims on appeal are claims 1 - 20.

**II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

- A. Whether claims 1-3, 5-10, 13, 14, 17, 19 and 20 are unpatentable under 35 U.S.C. § 103(a) as being obvious based on U.S. Patent No. 5,732,213 to Gessel (hereinafter “Gessel”) in view of U.S. Patent No. 5,027,343 to Chan et al. (hereinafter “Chan”); and
- B. Whether claims 4, 11, 15, 16 and 18 are unpatentable under 35 U.S.C. § 103(a) as being obvious based on Gessel in view of Chan in view of U.S. Patent No. 6,560,723 to Matsui (hereinafter “Matsui”).

### III. ARGUMENT

The Examiner's Answer summarizes Appellant's argument, in part, as follows:

A) Whether Gessel teaches additional test parameter - such as a protocol layer, abstract communication interface, service access points, or communication data - may be selected from displayed list?

(Examiner's Answer at 7).

Appellant traverses this characterization of the Appeal Brief arguments. In particular, the pending claims do not require that an "additional test parameter . . . may be selected from [a] displayed list." This characterization of the claims suggests that only one of these elements (protocol layer, abstract communication interface, service access points, or communication data) needs to be selected from a displayed list. Instead, the claims on appeal require that multiple, specific items be selected from a displayed list. For example,

in Claim 1:

**selecting a protocol layer . . . from a displayed list of protocol layers** that are capable of being emulated by the protocol tester . . . ;

**selecting abstract communication interfaces . . . from a displayed list of abstract communication interfaces** associated with the selected protocol layer;

**selecting communication data** contained in description files to be exchanged at the abstract communication interfaces; and

automatically setting up through the protocol tester the communication procedure on the basis of the selections made in the above selecting steps, with parameters for the abstract communications interfaces and the communication data **selecting steps being made graphically.**

in Claim 8:

**means for displaying a list of protocol layers** capable of being emulated by the protocol tester, . . . ;

**means for selecting a protocol layer** to be emulated by the protocol tester for testing a specified protocol layer of the item under test on the basis of the communication procedure;

**means for displaying a list of abstract communication interfaces** for the communication

procedure, the list of abstract communication interfaces associated with the selected protocol layer to be emulated;

**means for selecting abstract communication interfaces** of the emulated protocol layer for the communication procedure;

**means for selecting communication data** contained in description files to be exchanged at the abstract communication interfaces; and

**means for automatically setting up the communication procedure** through the protocol tester on the basis of the selections of the various selecting means, with **parameters for the abstract communication interfaces and the communication data selecting means being made graphically.**

in Claim 20:

**means for displaying a list of protocol layers** capable of being emulated by the protocol tester, . . . ;

**means for graphically selecting a protocol layer** to be emulated by the protocol tester for testing a specified protocol layer of the item under test;

**means for displaying a list of service access points** for the communication procedure, the list of service access points interfaces associated with the selected protocol layer;

**means for graphically selecting service access points** of the protocol layer to be emulated for the communication procedure;

**means for graphically selecting communication data** to be exchanged at the service access points, the communication data contained in description files; . . . .

Accordingly, in the pending claims, a list of protocol layers must be displayed and graphically selected **and** a list of service access points (associated with the selected protocol layer) must be displayed and graphically selected **and** communication data must be graphically selected. Therefore, the Examiner's statement that the claims require an "additional test parameter . . . may be selected from [a] displayed list" does not accurately describe the claims.

The Examiner's Answer argues that this (incorrect) limitation is found in the Gessel reference.

A) Gessel teaches this limitation because it displays a list of nodes that service as access points for testing communication protocol layer. (see Gessel, col. 11, lines 35-55) Therefore, Gessel teaches additional test parameter - such as

a protocol layer, abstract communication interface, service access points, or communication data - may be selected from a displayed list.

(Examiner's Answer at 7). The cited section of Gessel is reproduced below:

FIG. 14 is an illustration of a computer-displayed menu 146 of protocol simulation systems (virtual shelves) 148 which the PIG-tool 84 may access. This list is identical to the protocol simulation systems listed in the shelf selection menu 110 in the protocol simulator illustrated in FIG. 11. When a protocol simulation system is selected (e.g., exuboge\_large 149), a list of available nodes or line interface cards (LICs) 151 associated with the selected system is displayed. The list of LICs 151 also includes a reference to signaling points (STs) which correspond to data in the emulated telecommunication system. Once the operator selects the protocol simulation system and LICs that are to be utilized in testing, clicking on the button 152 labeled "MGTS Virtual Shelf" establishes a connection to the gateway Internet socket 83 (FIG. 7). When that connection is made, clicking on the "Emulator" button 153 establishes a connection to the emulator. Thus, the PIG-tool 84 makes a connection between a simulated LIC generated by the protocol simulator and a signaling point in the emulated system.

This disclosure teaches: (1) a list of protocol simulation systems or virtual shelves 148; and (2) a list of available nodes or line interface cards (LICs) 151 associated with a selected protocol simulation system. However, Figure 14 and the related text do not disclose the features required in the pending claims.

Gessel fails to disclose graphically selecting a protocol layer "for testing a specified protocol layer of the item under test." Instead, Gessel teaches graphically selecting a protocol simulation system or virtual shelf.

Gessel fails to disclose graphically selecting abstract communication interfaces "associated with the selected protocol layer." Instead, Gessel discloses graphically selecting nodes or line interface cards associated with a selected protocol simulation system.

Gessel further fails to disclose graphically selecting communication data. The above quoted section of Gessel includes no discussion of communication data. The previously cited sections of Gessel for this limitation (col. 3, lns. 15-32 and col. 7, lns. 50-70 (Examiners Answer at 4)) also fail to disclose graphically selecting communication data. Instead, those sections of Gessel merely state that the "unit under test receives the data for processing" (col. 7, lns. 50-51) without identifying where the data is selected from or how the data is selected.

The cited references do not teach or suggest displaying and graphically selecting a list

of protocol layers, and displaying and graphically selecting a list of service access points (associated with the selected protocol layer), and graphically selecting communication data.

For all the reasons discussed above, the rejections of claims 1-20 should be reversed as the claims relate to patentable inventions that are not rendered obvious by the cited references.

Accordingly, Appellants respectfully request that the rejection of claims 1-20 be reversed and that the case be passed on to issuance.

Respectfully submitted,

October 19, 2009  
Date

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### **CLAIMS APPENDIX**

1. (Previously Presented) A method of setting up a communication procedure between instances, comprising the steps of:

selecting the instances that take part in the communication procedure, one instance being a protocol tester and another instance being an item under test;

selecting a protocol layer to be emulated by the protocol tester for testing a specified protocol layer of the item under test on the basis of the communication procedure, the protocol layer selected from a displayed list of protocol layers that are capable of being emulated by the protocol tester, the list of protocol layers including at least one layer 2 protocol from an OSI (Open Systems Interconnection) reference model;

selecting abstract communication interfaces of the emulated protocol layer for the communication procedure, the abstract communication interfaces selected from a displayed list of abstract communication interfaces associated with the selected protocol layer;

selecting communication data contained in description files to be exchanged at the abstract communication interfaces; and

automatically setting up through the protocol tester the communication procedure on the basis of the selections made in the above selecting steps, with parameters for the abstract communications interfaces and the communication data selecting steps being made graphically.



2. (Previously Presented) The method as recited in claim 1 wherein the instances selecting step comprises the step of selecting the instances graphically, and/or the emulated protocol layer selecting step comprises the step of selecting the emulated protocol layer graphically, and the parameters selectable in these steps being assigned description files that are used in the setting up step.

3. (Previously Presented) The method as recited in claim 1 wherein the abstract communication interfaces comprise Service Access Points (SAPs).

4. (Original) The method as recited in claim 3 wherein the communication data comprise at least one type selected from the group consisting of Protocol Data Units (PDUs) and Abstract Service Primitives (ASPs).

5. (Previously Presented) The method as recited in claim 1 wherein the communication data comprise at least one type selected from the group consisting of Protocol Data Units (PDUS) and Abstract Service Primitives (ASPs).

6. (Original) The method as recited in claim 1 wherein the communication data selecting step comprises the steps of:

graphically selecting a data format; and

graphically setting up a communication sequence between the selected instances.

7. (Original) The method as recited in claim 6 wherein the graphically setting up step comprises the step of entering source code.

8. (Previously Presented) A protocol tester comprising:

means for selecting instances taking part in a communication procedure, one of the instances being the protocol tester and another instance being an item under test;

means for displaying a list of protocol layers capable of being emulated by the protocol tester, the list of protocol layers including at least one layer 2 protocol from an OSI (Open Systems Interconnection) reference model;

means for selecting a protocol layer to be emulated by the protocol tester for testing a specified protocol layer of the item under test on the basis of the communication procedure;

means for displaying a list of abstract communication interfaces for the communication procedure, the list of abstract communication interfaces associated with the selected protocol layer to be emulated;

means for selecting abstract communication interfaces of the emulated protocol layer for the communication procedure;

means for selecting communication data contained in description files to be exchanged at the abstract communication interfaces; and

means for automatically setting up the communication procedure through the protocol tester on the basis of the selections of the various selecting means, with parameters for the abstract communication interfaces and the communication data selecting means being made graphically.

9. (Previously Presented) The protocol tester as recited in claim 8 wherein the instances selecting means and/or the emulated protocol layer selecting means comprise graphical selecting means and the parameters selected by these selecting means are assigned description files that are used in the automatically setting up means.

10. (Previously Presented) The protocol tester as recited in claim 8 wherein the abstract communication interfaces comprise Service Access Points (SAPs).

11. (Original) The protocol tester as recited in claim 10 wherein the communication data comprises one type selected from the group consisting of Protocol Data Units (PDUs) and Abstract Service Primitives (ASPs).

12. (Original) The protocol tester as recited in claim 11 further comprising means for entering source codes.

13. (Original) The protocol tester as recited in claim 8 wherein all parameters selected by all the selecting means are assigned description files that are used by the setting up means.

14. (Previously Presented) The method as recited in claim 2 wherein the abstract communication interfaces comprise Service Access Points (SAPs).

15. (Previously Presented) The method as recited in claim 14 wherein the communication data comprise at least one type selected from the group consisting of Protocol Data Units (PDUs) and Abstract Service Primitives (ASPs).

16. (Previously Presented) The method as recited in claim 2 wherein the communication data comprise at least one type selected from the group consisting of Protocol Data Units (PDUS) and Abstract Service Primitives (ASPs).

17. (Previously Presented) The protocol tester as recited in claim 9 wherein the abstract communication interfaces comprise Service Access Points (SAPs).

18. (Previously Presented) The protocol tester as recited in claim 17 wherein the communication data comprises one type selected from the group consisting of Protocol Data Units (PDUs) and Abstract Service Primitives (ASPs).

19. (Previously Presented) The protocol tester as recited in claim 18 further comprising means for entering source codes.

20. (Previously Presented) A graphical user interface for a protocol tester comprising:

- means for graphically selecting devices to be used in a communication procedure, a first being the protocol tester and a second device being an item under test;
- means for displaying a list of protocol layers capable of being emulated by the protocol tester, the list of protocol layers including at least one layer 2 protocol from an OSI (Open Systems Interconnection) reference model;
- means for graphically selecting a protocol layer to be emulated by the protocol tester for testing a specified protocol layer of the item under test;
- means for displaying a list of service access points for the communication procedure, the list of service access points interfaces associated with the selected protocol layer;
- means for graphically selecting service access points of the protocol layer to be emulated for the communication procedure;
- means for graphically selecting communication data to be exchanged at the service access points, the communication data contained in description files; and
- means for automatically setting up the communication procedure through the protocol tester on the basis of the selections of the various selecting means.